Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the	)	
Commission's Rules to Adopt	)	PR Docket No. 93-61
Regulations for Automatic	)	
Vehicle Monitoring Systems	)	

To: The Commission

CONSOLIDATED COMMENTS ON PETITIONS FOR RECONSIDERATION

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SUMMARY

In its R&O the Commission has attempted to balance the interference concerns of Part 15 users and the legitimate operational requirements of a new Location Monitoring Service (LMS). Contrary to the requests of LMS petitioners the Commission must not now take any actions that would whittle away the interference safeguards that have been afforded Part 15 operators.

Authorization of LMS wideband forward links in the 902-928 MHz band is antithetical to the Commission's band sharing efforts and should be rejected. Similarly, the FCC should strengthen the restrictions on ancillary LMS communications in order to retain the primary purpose of LMS as a location monitoring service and not a standard messaging service.

In order to ensure effective band sharing the FCC should clarify and strengthen the procedures under which LMS licensees will be required to demonstrate compatibility with Part 15 devices. Finally, the Commission should eliminate the arbitrary de facto limit on the height of many Part 15 devices.

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CONSOLIDATED COMMENTS ON PETITIONS FOR RECONSIDERATION

Pursuant to Section 1.429 of the Commission's Rules, UTC[1/] hereby submits the following consolidated comments on various Petitions for Reconsideration filed with respect to the Commission's Report and Order, FCC 95-41, released February 6, 1995 (R&O) in the above-captioned matter.

UTC is the national representative on communications matters for nearly 2,000 of the nation's electric, gas and water utilities and natural gas pipelines. UTC was an active participant in this docket, urging protection for the millions of unlicensed devices used by utilities and pipelines for meter reading and distribution automation. Further, UTC has itself filed a "Petition for Reconsideration" regarding certain aspects of the R&O.

[1/] UTC, The Telecommunications Association, was formerly known as the Utilities Telecommunications Council.

As will be discussed in greater detail below, UTC supports the petitions filed by the Ad Hoc Gas Distribution Utilities (Gas Utilities), Metricom, Cellnet, Part 15 Coalition, Connectivity for Learning Coalition (CLC) and the Wireless Transactions Corporation (WTC), and opposes certain aspects of the petitions filed by Pinpoint Communications (Pinpoint), MobileVsion, L.P., Uniplex Corporation, Amtech Corporation and Southwestern Bell Mobile Systems (SBMS).

I. WIDEBAND FORWARD LINKS SHOULD BE PROHIBITED

Throughout this proceeding the Commission has attempted to balance the interference concerns of Part 15 users and the legitimate operational requirements of a new Location Monitoring Service (LMS). However, the R&O's authorization of LMS wideband forward links in the 902-928 MHz band is antithetical to the Commission's band sharing efforts. For this reason, UTC fully supports efforts by the Gas Utilities, Metricom, Cellnet, WTC, and the Part 15 Coalition to eliminate wideband forward links on reconsideration.

As Metricom points out, the record in this proceeding is filled with evidence that wideband forward links will severely constrain the use of the band segments in which they operate.[2/] Moreover, as the Part 15 Coalition notes, a persuasive case has never been made that such links have a unique or superior value warranting their existence.[3/] Indeed, the Gas Utilities refute Pinpoint's argument that wideband forward links promote positional accuracy by noting that it is the reverse link which is used to determine location.[4/]

Thus given their significant potential for interference to Part 15 operations and lack of countervailing benefits, wideband forward links should be prohibited in the 902-928 MHz band.

II. THE RESTRICTIONS ON ANCILLARY LMS COMMUNICATIONS SHOULD BE STRENGTHENED TO RETAIN THE PRIMARY PURPOSE OF LMS AS LOCATION MONITORING, NOT VOICE OR DATA COMMUNICATIONS

In its own petition for reconsideration, UTC noted that despite the Commission's good intentions, the current rule provisions will not effectively deter the conversion of LMS systems into general messaging or interconnected

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[2/] Metricom, p. 7; and Cellnet, p. 4.

[3/] Part 15 Coalition, p. 5.

[4/] Gas Utilities, p. 14, fn. 20.

voice or data services. A number of other petitions echo UTC's concerns that absent more stringent controls the ancillary messaging and "store and forward" provisions of the R&O will dramatically increase the overall interference levels in the band.[5/]

Evidence of the potential for LMS to degenerate into a standard messaging service can be found in the Petition for Reconsideration filed by MobileVision. MobileVision requests unrestricted interconnection to the public switched telephone network (PSTN) in order to eliminate "restrictions on the content and availability of voice and data communications that may be used by service subscribers."[6/] Mobilevision's request should be rejected. As SBMS notes, "permitting lengthy conversations on LMS spectrum will increase the probability of harmful interference with Part 15 devices and with other LMS systems."[7/]

UTC agrees with CWC, Metricom, Gas Utilities and Part 15 Coalition that the Commission should not allow LMS systems to interconnect with the PSTN. This will serve as

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[5/] SBMS, pp. 9-11; Gas Utilities, pp. 15-17; CLC, pp. 11-13; Part 15 Coalition, pp. 7-12; Metricom, pp. 13-15; and Cellnet, pp. 10-13.

[6/] Mobilevision, p. 2.

[7/] SBMS, p. 11.

a major deterrent to the use of LMS systems for general voice and data communications and will help to ensure that LMS channels are used principally for location and monitoring functions.

To the extent it is deemed advisable to allow LMS systems to be used to transmit "emergency" communications, UTC agrees with the Part 15 Coalition and Cellnet that the Commission prescribe by rule technical restrictions designed to ensure that such use is limited to pre-programmed emergency signals/messages related to a vehicle or a passenger in a vehicle. Such real-time, interconnected communications should only be sent to or received from a system dispatch point or entities eligible in the Public Safety or Special Emergency Radio Services.[8/]

Absent reasonable restrictions such as these, channel occupancy in the 902-928 MHz band could become congested with traditional voice and data traffic, making them unusable for Part 15 devices.[9/] Significant capacity

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[8/] Cellnet, p. 13.

[9/] A two-second limit on message duration is also imposed on ancillary fixed data communications in private land mobile radio systems operating in a shared frequency environment. 47 C.F.R. §90.235. This should be more than adequate for the transmission of non-voice messages relating to location or monitoring functions. A limit of

(continued...)

exists in other mobile radio services for more extensive messaging functions, and there is no need to impose an additional burden on this already congested 902-928 MHz band.

III. TESTING PROCEDURES MUST BE CLARIFIED

UTC agrees with the Gas Utilities and the Part 15 Coalition that the failure to specify specific testing procedures undercuts the interference standards and protections adopted in the R&O. UTC joins these parties in requesting the Commission to clarify and strengthen the procedures under which LMS licensees will be required to demonstrate compatibility with Part 15 devices. Specifically, the FCC should clarify that: (1) manufacturers and users of Part 15 devices must have an opportunity to participate in the design and implementation of the tests; (2) no revenue service may be initiated before successful completion of testing; (3) LMS licensees may operate their systems only in conformance with the systems as tested and approved; and (4) no changes may be made in the operating parameters as approved during the initial testing process without re-testing.

[9/](...continued)
one message per 30 minute interval will allow for sufficient opportunities to update location or monitoring status, yet discourage LMS from being used primarily for routine messaging.

IV. GRANDFATHERED SYSTEMS SHOULD PROTECT PART 15 SYSTEMS

UTC agrees with the Gas Utilities and other petitioners that the rules "grandfathering" authorized LMS systems are too liberal and need to be made consistent with the overall rules. As the Gas Utilities note, grandfathering LMS systems under interim rules does not account for the FCC's delicate balancing of interests in this proceeding since it would provide virtually no interference protection for Part 15 devices.[10/]

It is for this reason that UTC opposes the petitions of Pinpoint and Mobilevision to further liberalize the grandfathering provisions. Pinpoint and Mobilevision request the authority to build out their systems under their original business plans as if the final rules were never adopted. Such an expansion of the existing grandfathering rules would all but eviscerate the R&O's Part 15 protections in areas in which LMS providers have been granted licenses. As Cellnet points out there is no basis for grandfathering stations that have not yet been constructed.[11/] Further, as LMS proponent SBMS notes, grandfathering unbuilt AVM licenses disserves the public interest by undermining spectrum auctions and promoting spectrum warehousing.

[10/] Gas Utilities, p. 10.

[11/] Cellnet, p. 13.

For the above reasons, UTC supports the Gas Utilities' recommendations for grandfathered LMS:

a. Grandfathered multilateration systems would be required to comply with the R&O's height/power limitations by April 1, 1996;

b. Such systems would be required to comply with all other aspects of the amended rules by April 1, 1997; and

c. Such systems would not receive interference protection from Part 15 devices operating otherwise in compliance with the Rules, and would be placed under an obligation to minimize interference to such Part 15 devices until they are in full compliance with the amended rules.[12/]

V. THE PART 15 INTERFERENCE PROTECTION MEASURES ARE A LOGICAL OUTGROWTH OF THE PROCEEDING

A few of the LMS proponents raise a procedural objection to the R&O's adoption of an irrebuttable presumption of non-interference to LMS systems by Part 15 devices operating under certain conditions.[13/] These parties argue that the R&O represents an unexplained deviation from FCC policy that was not foreshadowed by the proposals in the NPRM and that the interference rules would require a separate rulemaking under Part 15 to be valid.

[12/] Gas Utilities, p. 10.

[13/] SBMS, pp. 7-9; Pinpoint, pp. 21-24; and Uniplex, pp. 7-8.

These arguments are without merit. The R&O did not amend the Part 15 Rules; instead it incorporated specific limitations on the operation of LMS under Part 90 and certain conditions on the operating authority of such systems. Further, the adoption of these limitations are a logical outgrowth of the proceeding. In the NPRM the Commission specifically raised the issue of Part 15 operations in the 902-928 MHz band and solicited comments on the best manner to share this spectrum.

Moreover, the issue of interference between Part 15 devices and LMS systems has been the primary source of debate in this proceeding during the last 18 months. In fact, the issue of providing a presumption of non-interference for Part 15 devices was the specific subject of an informal FCC staff proposal to which SBMS and Mobilevision both responded.[14/]

Rather than their stated concerns over procedural irregularities, the petitions are aimed at whittling away the interference safeguards that have been afforded Part 15 operators. It is indeed curious to note that it was not until after LMS secured an allocation on the basis of assertions regarding the feasibility of spectrum sharing

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[14/] Ex Parte communications in Docket 93-61 by SBMS and MobileVision filed August 12, 1994.

that the LMS community has raised concerns about potential interference.[15/]

VI. THE RULES SHOULD NOT IMPOSE DE FACTO HEIGHT LIMITS ON PART 15 DEVICES USED IN UTILITY COMMUNICATIONS SYSTEMS

UTC joins Metricom, CLC and the Part 15 Coalition in opposing the arbitrary de facto limit on the height of many Part 15 devices. Under Section 90.361(c)(2) the R&O provides that a Part 15 device with an outdoor antenna will not be considered to be causing harmful interference to a multilateration LMS system if the antenna is less than 5 meters above ground or is less than 15 meters above ground but operating at reduced power.

As was well-documented by UTC and others in this proceeding, some utilities are installing wide area communications networks in the 902-928 MHz band to provide sophisticated control of their public service utility systems. The communications systems being deployed by some electric utilities, for example, rely on radio transceivers mounted on top of utility poles or street lights. These installations are ideal in the utility context because they

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[15/] MobileVision raises the specter of Part 15 users intentionally placing devices in the proximity of LMS systems in order to cause interference and extract "greenmail." UTC considers that such a scenario is highly improbable and that the FCC has appropriate authority to take care of a situation where a party intentionally interferes with another party's radio system.

provide adequate height for cost-effective deployment of a sufficient number of devices to cover the utility's service area, and power to operate the transceivers can be readily obtained at the utility pole or street light. However, most of the devices in such networks exceed 5 meters above ground due to the standard height of utility poles and street lights.

While the Commission acknowledged the contribution to the public and the economy from automated meter reading systems and local area networks operating under Part 15, the selection of 5 meters as the maximum height for full power operation appears intended to make it impractical, if not impossible, for utilities to successfully operate pole-mounted systems.

As Metricom notes, location-sensitive limits placed on Part 15 operations will immediately increase the administrative, overhead and engineering costs of Part 15 operations.[16/] This will have a devastating impact on many Part 15 applications since it effectively eliminates the major consumer advantage of these systems -- rapid low cost deployment anywhere at anytime.

[16/] Metricom, p. 5.

UTC therefore agrees with Metricom's request that the 5-meter height limit specified in Section 90.361(c)(2) be removed, or that the limit be raised to at least 15 meters above ground. Alternatively, as was recommended by UTC in its petition, in recognition of the unique communications networks being developed by utilities to promote the safe and efficient delivery of public utility services, Section 90.361(c)(2)(ii)(B) could be revised as follows:

> (B) Is operated by an entity eligible under Subparts B or C of Part 90 or under Section 90.63.

VII THE NON-MULTILATERATION LMS POWER HEIGHT LIMIT SHOULD REMAIN IN PLACE

UTC opposes Amtech's request to replace the non-multilateration power/height limit with a field strength limit. The R&O established a peak ERP for non-multilateration systems of 30 watts over the licensee's authorized bandwidth, and restricted the antenna height above ground of these systems to 15 meters.

Amtech requests that non-multilateration systems be allowed to operate in excess of these limits if the resultant radiated electric field is limited to 90 dBuV/m at a distance of one mile from the site and at a height of six feet.[17/] UTC opposes such a standard since under certain circumstances the proposed change in the field

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[17/] Amtech, pp. 12-13.

strength limit could equate to an ERP of 85 watts and would thereby dramatically increase the probability of interference to Part 15 systems.

VIII CONCLUSION

In its R&O the Commission has attempted to balance the interference concerns of Part 15 users and the legitimate operational requirements of a new Location Monitoring Service (LMS). The Commission must not now take any actions that would whittle away the interference safeguards that have been afforded Part 15 operators.

Authorization of LMS wideband forward links in the 902-928 MHz band is antithetical to the Commission's band sharing efforts and should be rejected. Similarly, the FCC should strengthen the restrictions on ancillary LMS communications in order to retain the primary purpose of LMS as a location monitoring service and not a standard messaging service.

In order to ensure effective band sharing the FCC should clarify and strengthen the procedures under which LMS licensees will be required to demonstrate compatibility with Part 15 devices. Finally, the Commission should eliminate the arbitrary de facto limit on the height of many Part 15 devices.

WHEREFORE, THE PREMISES CONSIDERED, UTC respectfully requests the Commission to take action in this matter in accordance with the views expressed herein.

Respectfully submitted,

UTC

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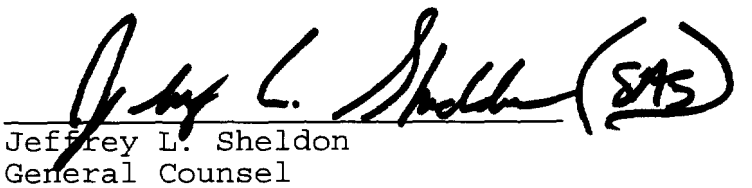

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Dated: May 24, 1995

CERTIFICATE OF SERVICE

I, Kim B. Winborne a secretary of UTC, The Telecommunications Association hereby certify that I have caused to be sent, by first class mail, postage prepaid, this 24th day of May 1995, a copy of the foregoing to each of the following:

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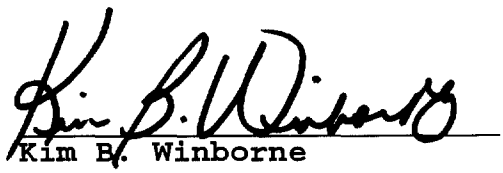

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